FEDERAL OPERATING PERMIT

A FEDERAL OPERATING PERMIT IS HEREBY ISSUED TO
Continental Carbon Company

AUTHORIZING THE OPERATION OF
Sunray Plant
Other Basic Inorganic Chemical Manufacturing

LOCATED AT
Moore County, Texas
Latitude 35° 58' 52" Longitude 101° 53' 34"
Regulated Entity Number: RN102321577

This permit is issued in accordance with and subject to the Texas Clean Air Act (TCAA), Chapter 382 of the Texas Health and Safety Code and Title 30 Texas Administrative Code Chapter 122 (30 TAC Chapter 122), Federal Operating Permits. Under 30 TAC Chapter 122, this permit constitutes the permit holder's authority to operate the site and emission units listed in this permit. Operations of the site and emission units listed in this permit are subject to all additional rules or amended rules and orders of the Commission pursuant to the TCAA.

This permit does not relieve the permit holder from the responsibility of obtaining New Source Review authorization for new, modified, or existing facilities in accordance with 30 TAC Chapter 116, Control of Air Pollution by Permits for New Construction or Modification.

The site and emission units authorized by this permit shall be operated in accordance with 30 TAC Chapter 122, the general terms and conditions, special terms and conditions, and attachments contained herein.

This permit shall expire five years from the date of issuance. The renewal requirements specified in 30 TAC § 122.241 must be satisfied in order to renew the authorization to operate the site and emission units.

Permit No: O1259 Issuance Date: _____

_____
For the Commission

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General Terms and Conditions

The permit holder shall comply with all terms and conditions contained in 30 TAC § 122.143 (General Terms and Conditions), 30 TAC § 122.144 (Recordkeeping Terms and Conditions), 30 TAC § 122.145 (Reporting Terms and Conditions), and 30 TAC § 122.146 (Compliance Certification Terms and Conditions).

In accordance with 30 TAC § 122.144(1), records of required monitoring data and support information required by this permit, or any applicable requirement codified in this permit, are required to be maintained for a period of five years from the date of the monitoring report, sample, or application unless a longer data retention period is specified in an applicable requirement. The five-year record retention period supersedes any less stringent retention requirement that may be specified in a condition of a permit identified in the New Source Review Authorization attachment.

If the permit holder chooses to demonstrate that this permit is no longer required, a written request to void this permit shall be submitted to the Texas Commission on Environmental Quality (TCEQ) by the Responsible Official in accordance with 30 TAC § 122.161(e). The permit holder shall comply with the permit's requirements, including compliance certification and deviation reporting, until notified by the TCEQ that this permit is voided.

The permit holder shall comply with 30 TAC Chapter 116 by obtaining a New Source Review authorization prior to new construction or modification of emission units located in the area covered by this permit.

All reports required by this permit must include in the submittal a cover letter which identifies the following information: company name, TCEQ regulated entity number, air account number (if assigned), site name, area name (if applicable), and Air Permits Division permit number(s).

Special Terms and Conditions:

Emission Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting

1. Permit holder shall comply with the following requirements:

    A. Emission units (including groups and processes) in the Applicable Requirements Summary attachment shall meet the limitations, standards, equipment specifications, monitoring, recordkeeping, reporting, testing, and other requirements listed in the Applicable Requirements Summary attachment to assure compliance with the permit.

    B. The textual description in the column titled "Textual Description" in the Applicable Requirements Summary attachment is not enforceable and is not deemed as a substitute for the actual regulatory language. The Textual Description is provided for information purposes only.

    C. A citation listed on the Applicable Requirements Summary attachment, which has a notation [G] listed before it, shall include the referenced section and subsection for all commission rules, or paragraphs for all federal and state regulations and all subordinate paragraphs, subparagraphs and clauses, subclauses, and items contained within the referenced citation as applicable requirements.

    D. When a grouped citation, notated with a [G] in the Applicable Requirements Summary, contains multiple compliance options, the permit holder must keep records of when each compliance option was used.

    E. Emission units subject to 40 CFR Part 63, Subparts A and YY as identified in the attached Applicable Requirements Summary table are subject to 30 TAC Chapter 113,

Subchapter C, § 113.100 and § 113.560 which incorporates the 40 CFR Part 63 Subpart by reference.

2. The permit holder shall comply with the following sections of 30 TAC Chapter 101 (General Air Quality Rules):

   A. Title 30 TAC § 101.1 (relating to Definitions), insofar as the terms defined in this section are used to define the terms used in other applicable requirements

   B. Title 30 TAC § 101.3 (relating to Circumvention)

   C. Title 30 TAC § 101.8 (relating to Sampling), if such action has been requested by the TCEQ

   D. Title 30 TAC § 101.9 (relating to Sampling Ports), if such action has been requested by the TCEQ

   E. Title 30 TAC § 101.10 (relating to Emissions Inventory Requirements)

   F. Title 30 TAC § 101.201 (relating to Emission Event Reporting and Recordkeeping Requirements)

   G. Title 30 TAC § 101.211 (relating to Scheduled Maintenance, Start-up, and Shutdown Reporting and Recordkeeping Requirements)

   H. Title 30 TAC § 101.221 (relating to Operational Requirements)

   I. Title 30 TAC § 101.222 (relating to Demonstrations)

   J. Title 30 TAC § 101.223 (relating to Actions to Reduce Excessive Emissions)

3. Permit holder shall comply with the following requirements of 30 TAC Chapter 111:

   A. Visible emissions from stationary vents with a flow rate of less than 100,000 actual cubic feet per minute that are not listed in the Applicable Requirements Summary attachment for 30 TAC Chapter 111, Subchapter A, Division 1, shall not exceed 20% opacity averaged over a six-minute period. The permit holder shall comply with the following requirements for stationary vents at the site subject to this standard:

      (i) Title 30 TAC § 111.111(a)(1)(B) (relating to Requirements for Specified Sources)

      (ii) Title 30 TAC § 111.111(a)(1)(E)

      (iii) Title 30 TAC § 111.111(a)(1)(F)(i), (ii), (iii), or (iv)

      (iv) For emission units with vent emissions subject to 30 TAC § 111.111(a)(1)(B), complying with 30 TAC § 111.111(a)(1)(F)(ii), (iii), or (iv), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and NO_x, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146. These periodic monitoring requirements do not apply to vents that are not capable of producing visible emissions such as vents that emit only colorless VOCs; vents from non-fuming liquids; vents that provide passive ventilation, such as plumbing vents; or vent emissions from any other source that does not obstruct the transmission of light. Vents, as specified in the “Applicable

Requirements Summary" attachment, that are subject to the emission limitation of 30 TAC § 111.111(a)(1)(B) are not subject to the following periodic monitoring requirements:

(1) An observation of stationary vents from emission units in operation shall be conducted at least once during each calendar quarter unless the emission unit is not operating for the entire quarter.

(2) For stationary vents from a combustion source, if an alternative to the normally fired fuel is fired for a period greater than or equal to 24 consecutive hours, the permit holder shall conduct an observation of the stationary vent for each such period to determine if visible emissions are present. If such period is greater than 3 months, observations shall be conducted once during each quarter. Supplementing the normally fired fuel with natural gas or fuel gas to increase the net heating value to the minimum required value does not constitute creation of an alternative fuel.

(3) Records of all observations shall be maintained.

(4) Visible emissions observations of emission units operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of emission units operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions observations shall be made during times when the activities described in 30 TAC § 111.111(a)(1)(E) are not taking place. Visible emissions shall be determined with each stationary vent in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each stationary vent during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer's eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.

(5) Compliance Certification:

(a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the applicable opacity requirement in 30 TAC § 111.111(a)(1) and (a)(1)(B).

(b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(1)(F) as soon as practicable, but no later than 24 hours after observing visible emissions to determine if the source is in compliance with the opacity requirements. If an opacity test is performed and the source is determined to be in compliance, the RO may certify that the

source is in compliance with the applicable opacity requirement. However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader.

(c) Some vents may be subject to multiple visible emission or monitoring requirements. All credible data must be considered when certifying compliance with this requirement even if the observation or monitoring was performed to demonstrate compliance with a different requirement.

B. Certification of opacity readers determining opacities under Method 9 (as outlined in 40 CFR Part 60, Appendix A) to comply with opacity monitoring requirements shall be accomplished by completing the Visible Emissions Evaluators Course, or approved agency equivalent, no more than 180 days before the opacity reading.

C. Emission limits on nonagricultural processes, except for the steam generators specified in 30 TAC § 111.153, shall comply with the following requirements:

(i) Emissions of PM from any source may not exceed the allowable rates as required in 30 TAC § 111.151(a) (relating to Allowable Emissions Limits)

(ii) Sources with an effective stack height (h_e) less than the standard effective stack height (H_e), must reduce the allowable emission level by multiplying it by $[h_e/H_e]^2$ as required in 30 TAC § 111.151(b)

(iii) Effective stack height shall be calculated by the equation specified in 30 TAC § 111.151(c)

4. The permit holder shall comply with the following requirements for units subject to any subpart of 40 CFR Part 60, unless otherwise stated in the applicable subpart:

A. Title 40 CFR § 60.7 (relating to Notification and Recordkeeping)

B. Title 40 CFR § 60.8 (relating to Performance Tests)

C. Title 40 CFR § 60.11 (relating to Compliance with Standards and Maintenance Requirements)

D. Title 40 CFR § 60.12 (relating to Circumvention)

E. Title 40 CFR § 60.13 (relating to Monitoring Requirements)

F. Title 40 CFR § 60.14 (relating to Modification)

G. Title 40 CFR § 60.15 (relating to Reconstruction)

H. Title 40 CFR § 60.19 (relating to General Notification and Reporting Requirements)

5. The permit holder shall comply with the requirements of 30 TAC Chapter 113, Subchapter C, § 113.100 for units subject to any subpart of 40 CFR Part 63, unless otherwise stated in the applicable subpart.

New Source Review Authorization Requirements

6. Permit holder shall comply with the requirements of New Source Review authorizations issued or claimed by the permit holder for the permitted area, including permits, permits by rule, standard permits, flexible permits, special permits, permits for existing facilities including Voluntary Emissions Reduction Permits and Electric Generating Facility Permits issued under 30 TAC Chapter 116, Subchapter I, or special exemptions referenced in the New Source Review Authorization References attachment. These requirements:

    A. Are incorporated by reference into this permit as applicable requirements

    B. Shall be located with this operating permit

    C. Are not eligible for a permit shield

7. The permit holder shall comply with the general requirements of 30 TAC Chapter 106, Subchapter A or the general requirements, if any, in effect at the time of the claim of any PBR.

8. The permit holder shall maintain records to demonstrate compliance with any emission limitation or standard that is specified in a permit by rule (PBR) or Standard Permit listed in the New Source Review Authorizations attachment. The records shall yield reliable data from the relevant time period that are representative of the emission unit's compliance with the PBR or Standard Permit. These records may include, but are not limited to, production capacity and throughput, hours of operation, safety data sheets (SDS), chemical composition of raw materials, speciation of air contaminant data, engineering calculations, maintenance records, fugitive data, performance tests, capture/control device efficiencies, direct pollutant monitoring (CEMS, COMS, or PEMS), or control device parametric monitoring. These records shall be made readily accessible and available as required by 30 TAC § 122.144. Any monitoring or recordkeeping data indicating noncompliance with the PBR or Standard Permit shall be considered and reported as a deviation according to 30 TAC § 122.145 (Reporting Terms and Conditions).

Compliance Requirements

9. The permit holder shall certify compliance in accordance with 30 TAC § 122.146. The permit holder shall comply with 30 TAC § 122.146 using at a minimum, but not limited to, the continuous or intermittent compliance method data from monitoring, recordkeeping, reporting, or testing required by the permit and any other credible evidence or information. The certification period may not exceed 12 months and the certification must be submitted within 30 days after the end of the period being certified.

10. Use of Discrete Emission Credits to comply with the applicable requirements:

    A. Unless otherwise prohibited, the permit holder may use discrete emission credits to comply with the following applicable requirements listed elsewhere in this permit:

        (i) Title 30 TAC Chapter 115

        (ii) Title 30 TAC Chapter 117

        (iii) If applicable, offsets for Title 30 TAC Chapter 116

        (iv) Temporarily exceed state NSR permit allowables

    B. The permit holder shall comply with the following requirements in order to use the credit to comply with the applicable requirements:

(i) The permit holder must notify the TCEQ according to 30 TAC § 101.376(d)

(ii) The discrete emission credits to be used must meet all the geographic, timeliness, applicable pollutant type, and availability requirements listed in 30 TAC Chapter 101, Subchapter H, Division 4

(iii) The executive director has approved the use of the discrete emission credits according to 30 TAC § 101.376(d)(1)(A)

(iv) The permit holder keeps records of the use of credits towards compliance with the applicable requirements in accordance with 30 TAC § 101.372(h) and 30 TAC Chapter 122

(v) Title 30 TAC § 101.375 (relating to Emission Reductions Achieved Outside the United States)

Permit Location

11. The permit holder shall maintain a copy of this permit and records related to requirements listed in this permit on site.

Attachments

Applicable Requirements Summary

New Source Review Authorization References

Applicable Requirements Summary

Note: A “none” entry may be noted for some emission sources in this permit’s “Applicable Requirements Summary” under the heading of “Monitoring and Testing Requirements” and/or “Recordkeeping Requirements” and/or “Reporting Requirements.” Such a notation indicates that there are no requirements for the indicated emission source as identified under the respective column heading(s) for the stated portion of the regulation when the emission source is operating under the conditions of the specified SOP Index Number. However, other relevant requirements pursuant to 30 TAC Chapter 122 including Recordkeeping Terms and Conditions (30 TAC § 122.144), Reporting Terms and Conditions (30 TAC § 122.145), and Compliance Certification Terms and Conditions (30 TAC § 122.146) continue to apply.

Unit Summary

Unit/Group/ Process ID No.	Unit Type	Group/Inclusive Units	SOP Index No.	Regulation	Requirement Driver
21	FLARES	N/A	R111-1	30 TAC Chapter 111, Visible Emissions	No changing attributes.
21	FLARES	N/A	63A-1	40 CFR Part 63, Subpart A	No changing attributes.
23	FLARES	N/A	R111-1	30 TAC Chapter 111, Visible Emissions	No changing attributes.
23	FLARES	N/A	63A-1	40 CFR Part 63, Subpart A	No changing attributes.
GRPMBF	EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS	MBF #1, MBF #2, MBF #3	63YY-1	40 CFR Part 63, Subpart YY	No changing attributes.
WGB	BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS	N/A	60Db	40 CFR Part 60, Subpart Db	No changing attributes.

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
21	EU	R111-1	Opacity	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(4)(A)	Visible emissions from a process gas flare shall not be permitted for more than five minutes in any two-hour period, except for upset emissions as provided in §101.222(b).	§ 111.111(a)(4)(A)(i) § 111.111(a)(4)(A)(ii)	§ 111.111(a)(4)(A)(ii)	None
21	CD	63A-1	112(B) HAPS	40 CFR Part 63, Subpart A	§ 63.11(b)(4) § 63.11(b)(1) § 63.11(b)(2) § 63.11(b)(3) § 63.11(b)(5) § 63.11(b)(6)(i)(A) § 63.11(b)(6)(i)(B) § 63.11(b)(7)(i)	Flares shall be designed and operated with no visible emissions, except for periods of a total of 5 minutes or less during any 2 consecutive hrs. Test Method 22 in App. A of part 60 of this chapter shall be used.	§ 63.11(b)(4) § 63.11(b)(5) § 63.11(b)(7)(i)	None	None
23	EU	R111-1	Opacity	30 TAC Chapter 111, Visible Emissions	§ 111.111(a)(4)(A)	Visible emissions from a process gas flare shall not be permitted for more than five minutes in any two-hour period, except for upset emissions as provided in §101.222(b).	§ 111.111(a)(4)(A)(i) § 111.111(a)(4)(A)(ii)	§ 111.111(a)(4)(A)(ii)	None
23	CD	63A-1	112(B) HAPS	40 CFR Part 63, Subpart A	§ 63.11(b)(4) § 63.11(b)(1) § 63.11(b)(2) § 63.11(b)(3) § 63.11(b)(5) § 63.11(b)(6)(i)(A) § 63.11(b)(6)(i)(B) § 63.11(b)(7)(i)	Flares shall be designed and operated with no visible emissions, except for periods of a total of 5 minutes or less during any 2 consecutive hrs. Test Method 22 in App. A of part 60 of this chapter shall be used.	§ 63.11(b)(4) § 63.11(b)(5) § 63.11(b)(7)(i)	None	None
GRPMBF	EU	63YY-1	112(B) HAPS	40 CFR Part 63, Subpart YY	§ 63.1103 The permit holder shall comply with the applicable limitation, standard	The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart YY	The permit holder shall comply with the applicable monitoring and testing requirements of 40	The permit holder shall comply with the applicable recordkeeping requirements of 40	The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart YY

Applicable Requirements Summary

Unit Group Process ID No.	Unit Group Process Type	SOP Index No.	Pollutant	State Rule or Federal Regulation Name	Emission Limitation, Standard or Equipment Specification Citation	Textual Description (See Special Term and Condition 1.B.)	Monitoring And Testing Requirements	Recordkeeping Requirements (30 TAC § 122.144)	Reporting Requirements (30 TAC § 122.145)
					and/or equipment specification requirements of 40 CFR Part 63, Subpart YY		CFR Part 63, Subpart YY	CFR Part 63, Subpart YY	
WGB	EU	60Db	SO_2	40 CFR Part 60, Subpart Db	§ 60.40b(a)	This subpart applies to each steam generating unit constructed, modified, or reconstructed after 6/19/84, and that has a heat input capacity from fuels combusted in the unit > 29 MW (100 MMBtu/hr).	None	[G]§ 60.49b(d) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3)
WGB	EU	60Db	PM	40 CFR Part 60, Subpart Db	§ 60.40b(a)	This subpart applies to each steam generating unit constructed, modified, or reconstructed after 6/19/84, and that has a heat input capacity from fuels combusted in the unit > 29 MW (100 MMBtu/hr).	None	[G]§ 60.49b(d) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3)
WGB	EU	60Db	PM (Opacity)	40 CFR Part 60, Subpart Db	§ 60.40b(a)	This subpart applies to each steam generating unit constructed, modified, or reconstructed after 6/19/84, and that has a heat input capacity from fuels combusted in the unit > 29 MW (100 MMBtu/hr).	None	[G]§ 60.49b(d) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3)
WGB	EU	60Db	NO_X	40 CFR Part 60, Subpart Db	§ 60.40b(a)	This subpart applies to each steam generating unit constructed, modified, or reconstructed after 6/19/84, and that has a heat input capacity from fuels combusted in the unit > 29 MW (100 MMBtu/hr).	None	[G]§ 60.49b(d) § 60.49b(o)	§ 60.49b(a) § 60.49b(a)(1) § 60.49b(a)(3)

New Source Review Authorization References

New Source Review Authorization References

The New Source Review authorizations listed in the table below are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Prevention of Significant Deterioration (PSD) Permits	
PSD Permit No.: PSDTX463	Issuance Date: 05/31/2018
Title 30 TAC Chapter 116 Permits, Special Permits, and Other Authorizations (Other Than Permits By Rule, PSD Permits, or NA Permits) for the Application Area.	
Authorization No.: 133873	Issuance Date: 05/31/2018
Permits By Rule (30 TAC Chapter 106) for the Application Area	
Number: 106.102	Version No./Date: 09/04/2000
Number: 106.141	Version No./Date: 03/07/2013
Number: 106.183	Version No./Date: 09/04/2000
Number: 106.227	Version No./Date: 09/04/2000
Number: 106.261	Version No./Date: 11/01/2003
Number: 106.262	Version No./Date: 11/01/2003
Number: 106.263	Version No./Date: 11/01/2001
Number: 106.265	Version No./Date: 09/04/2000
Number: 106.412	Version No./Date: 09/04/2000
Number: 106.454	Version No./Date: 11/01/2001
Number: 106.472	Version No./Date: 09/04/2000
Number: 106.473	Version No./Date: 09/04/2000
Number: 106.511	Version No./Date: 09/04/2000
Number: 106.531	Version No./Date: 09/04/2000
Number: 106.532	Version No./Date: 09/04/2000

New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

Unit/Group/Process ID No.	Emission Unit Name/Description	New Source Review Authorization
21	FLARE #1	133873, PSDTX463
23	FLARE #2	133873, PSDTX463
MBF #1	MAIN BAG FILTER #1	133873, PSDTX463
MBF #2	MAIN BAG FILTER #2	133873, PSDTX463
MBF #3	MAIN BAG FILTER #3	133873, PSDTX463
WGB	WASTE GAS BOILER	133873, PSDTX463

Appendix A

Acronym List

The following abbreviations or acronyms may be used in this permit:

ACFM ..... actual cubic feet per minute
AMOC ..... alternate means of control
ARP ..... Acid Rain Program
ASTM ..... American Society of Testing and Materials
B/PA ..... Beaumont/Port Arthur (nonattainment area)
CAM ..... Compliance Assurance Monitoring
CD ..... control device
CEMS ..... continuous emissions monitoring system
CFR ..... Code of Federal Regulations
COMS ..... continuous opacity monitoring system
CVS ..... closed vent system
D/FW ..... Dallas/Fort Worth (nonattainment area)
EP ..... emission point
EPA ..... U.S. Environmental Protection Agency
EU ..... emission unit
FCAA Amendments ..... Federal Clean Air Act Amendments
FOP ..... federal operating permit
gr/100 scf ..... grains per 100 standard cubic feet
HAP ..... hazardous air pollutant
H/G/B ..... Houston/Galveston/Brazoria (nonattainment area)
H_2S ..... hydrogen sulfide
ID No. ..... identification number
lb/hr ..... pound(s) per hour
MACT ..... Maximum Achievable Control Technology (40 CFR Part 63)
MMBtu/hr ..... Million British thermal units per hour
NA ..... nonattainment
N/A ..... not applicable
NADB ..... National Allowance Data Base
NESHAP ..... National Emission Standards for Hazardous Air Pollutants (40 CFR Part 61)
NO_x ..... nitrogen oxides
NSPS ..... New Source Performance Standard (40 CFR Part 60)
NSR ..... New Source Review
ORIS ..... Office of Regulatory Information Systems
Pb ..... lead
PBR ..... Permit By Rule
PEMS ..... predictive emissions monitoring system
PM ..... particulate matter
ppmv ..... parts per million by volume
PRO ..... process unit
PSD ..... prevention of significant deterioration
psia ..... pounds per square inch absolute
SIP ..... state implementation plan
SO_2 ..... sulfur dioxide
TCEQ ..... Texas Commission on Environmental Quality
TSP ..... total suspended particulate
TVP ..... true vapor pressure
U.S.C. ..... United States Code
VOC ..... volatile organic compound

Appendix B

Major NSR Summary Table

Permit Number: 133873 and PSDTX463			Issuance Date: 05/31/2018				
			Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	lb/hr	TPY (4)	Special Condition/ Application Information	Special Condition/ Application Information	Special Condition/ Application Information
2	Unit 1 Exhaust Bag Filter Stack	SO2	48.91	173.86	21	21, 23	21
		H2S	0.10	0.35	19, 21	19, 21, 23	21
		CS2	0.13	0.47	19, 21	19, 21, 23	21
		COS	0.02	0.07	19, 21	19, 21, 23	21
		CO	12.09	50.13	19, 21	19, 21, 23	21
		HCN	0.02	0.09	19	19	
		VOC	0.32	1.34	19, 21	19, 21, 23	21
		NOx	6.35	26.22	21	21, 23	21
		NH3	<0.01	<0.01	21	21, 23	21
		PM/PM2.5/PM10	0.74	3.22	17, 18, 19, 21	15, 19, 21, 23	21
4	Pellet Dryer Firebox Stack	SO2	16.30	57.95	21	21, 23	21
		H2S	0.03	0.12	19, 21	19, 21, 23	21
		CS2	0.04	0.16	19, 21	19, 21, 23	21
		COS	0.01	0.02	19, 21	19, 21, 23	21
		CO	4.03	16.71	19, 21	19, 21, 23	21
		HCN	0.01	0.03	19	19	
		VOC	0.11	0.45	19, 21	19, 21, 23	21
		NOx	2.12	8.74	21	21, 23	21
		NH3	<0.01	<0.01	21	21, 23	21
		PM/PM2.5/PM10	0.21	1.03	21	21, 23	21
6	Unit 2 Exhaust Bag Filter Stack	SO2	48.91	173.86	21	21, 23	21
		H2S	0.10	0.35	19, 21	19, 21, 23	21
		CS2	0.13	0.47	19, 21	19, 21, 23	21
		COS	0.02	0.07	19, 21	19, 21, 23	21
		CO	12.09	50.13	19, 21	19, 21, 23	21

Major NSR Summary Table

Permit Number: 133873 and PSDTX463			Issuance Date: 05/31/2018				
			Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	lb/hr	TPY (4)	Special Condition/ Application Information	Special Condition/ Application Information	Special Condition/ Application Information
		HCN	0.02	0.09	19	19	
		VOC	0.32	1.34	19, 21	19, 21, 23	21
		NOx	6.35	26.22	21	21, 23	21
		NH3	<0.01	<0.01	21	21, 23	21
		PM/PM2.5/PM10	0.74	3.22	17, 18, 19, 21	15, 19, 21, 23	21
9	Unit 3 Exhaust Bag Filter Stack	SO2	48.91	173.86	21	21, 23	21
		H2S	0.10	0.35	19, 21	19, 21, 23	21
		CS2	0.13	0.47	19, 21	19, 21, 23	21
		COS	0.02	0.07	19, 21	19, 21, 23	21
		CO	12.09	50.13	19, 21	19, 21, 23	21
		HCN	0.02	0.09	19	19	
		VOC	0.32	1.34	19, 21	19, 21, 23	21
		NOx	6.35	26.22	21	21, 23	21
		NH3	<0.01	<0.01	21	21, 23	21
		PM/PM2.5/PM10	0.74	3.22	17, 18, 19, 21	15, 19, 21, 23	21
21, 23 and 24	Flare No 1 - Unit 1 and Unit 2 Flare No 2 – Unit 3 Waste Gas Boiler	SO2	---	2391.15			
		H2S	---	4.89			
		CS2	---	6.42			
		COS	---	1.00			
		CO	---	751.02			
		HCN	---	1.25			
		VOC	---	18.57			
		NOx	---	374.15			
		NH3	---	0.01			
		PM/PM2.5/PM10	---	51.87			
21	Flare No 1 – Unit 1	SO2	377.06	---	3	3, 13, 23	3

Major NSR Summary Table

Permit Number: 133873 and PSDTX463			Issuance Date: 05/31/2018				
			Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	lb/hr	TPY (4)	Special Condition/ Application Information	Special Condition/ Application Information	Special Condition/ Application Information
	and Unit 2	H2S	1.54	---	3, 19	3, 13, 19, 23	3
		CS2	2.07	---	3, 19	3, 13, 19, 23	3
		COS	0.32	---	3, 19	3, 13, 19, 23	3
		CO	211.14	---	3, 19	3, 13, 19, 23	3
		HCN	0.35	---	3, 19	3, 13, 19, 23	3
		VOC	5.03	---	3, 19	3, 13, 19, 23	3
		NOx	27.67	---	3	3, 13	3
		NH3	<0.01	---	3, 19	3, 13, 19, 23	3
		PM/PM2.5/PM10	5.42	---	3, 18	3, 13, 18, 23	3
23	Flare No 2 – Unit 3	SO2	269.66	---	3	3, 13, 23	3
		H2S	1.13	---	3, 19	3, 13, 19, 23	3
		CS2	1.42	---	3, 19	3, 13, 19, 23	3
		COS	0.22	---	3, 19	3, 13, 19, 23	3
		CO	146.10	---	3, 19	3, 13, 19, 23	3
		HCN	0.24	---	3, 19	3, 13, 19, 23	3
		VOC	3.64	---	3, 19	3, 13, 19, 23	3
		NOx	19.15	---	3	3, 13	3
		NH3	<0.01	---	3, 19	3, 13, 19,23	3
		PM/PM2.5/PM10	3.87	---	3, 18	3, 13, 18, 23	3
24	Waste Gas Boiler	SO2	652.44	---	19, 21	13, 19, 21, 23	19, 21
		H2S	1.33	---	21	13, 21	21
		CS2	1.75	---	21	13, 21	21
		COS	0.27	---	21	13, 21	21
		CO	175.17	---	19, 21	13, 19, 21, 23	19, 21
		HCN	0.29	---		13	
		VOC	4.34	---	21	13, 21	21

Major NSR Summary Table

Permit Number: 133873 and PSDTX463			Issuance Date: 05/31/2018				
			Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	lb/hr	TPY (4)	Special Condition/ Application Information	Special Condition/ Application Information	Special Condition/ Application Information
		NOx	112.70	---	19, 21	13, 19, 21, 23	19, 21
		NH3	<0.01	---	21	13, 21	21
		PM/PM2.5/PM10	10.74	---	18, 21, 23	13, 18, 21, 23	21
15a	Large Shipping Dock Cleanup Bag Filter (CUBF)	PM/PM10	0.03	0.08	17, 18, 19	15, 18, 19, 23	
		PM2.5	0.02	0.05	17, 18, 19	15, 18, 19, 23	
15b	Small Shipping Dock Cleanup Bag Filter	PM/PM10	0.03	0.08	17, 18, 19	15, 18, 19, 23	
		PM2.5	0.02	0.05	17, 18, 19	15, 18, 19, 23	
25	Unit No. 1 Black Cooler Bag Filter (BCBF)	PM/PM10	0.03	0.15	17, 18, 19, 21	15, 18, 19, 21, 23	21
		PM2.5	0.02	0.10	17, 18, 19, 21	15, 18, 19, 21, 23	21
26	Unit No. 1 Cleanup Bag Filter	PM/PM10	0.03	0.15	17, 18, 19	15, 18, 19, 23	
		PM2.5	0.02	0.10	17, 18, 19	15, 18, 19, 23	
27	Unit No. 2 Black Cooler Bag Filter	PM/PM10	0.03	0.15	17, 18, 19, 21	15, 18, 19, 21, 23	21
		PM2.5	0.02	0.10	17, 18, 19, 21	15, 18, 19, 21, 23	21
28	Unit No. 2 Cleanup Bag Filter	PM/PM10	0.03	0.15	17, 18, 19	15, 18, 19, 23	
		PM2.5	0.02	0.10	17, 18, 19	15, 18, 19, 23	
29	Unit No. 3 Black Cooler Bag Filter	PM/PM10	0.03	0.15	17, 18, 19, 21	15, 18, 19, 21, 23	21
		PM2.5	0.02	0.10	17, 18, 19, 21	15, 18, 19, 21, 23	21
30	Unit No. 3 Product Bag Filter	PM/PM10	0.03	0.15	17, 18, 19, 21	15, 19, 21, 23	21
		PM2.5	0.02	0.10	17, 18, 19, 21	15, 19, 21, 23	21
FUG1	Product Handling Fugitives No. 1	PM/PM2.5/PM10	<0.01	<0.01	18	18, 23	
FUG2	Product Handling Fugitives No. 2	PM/PM2.5/PM10	<0.01	<0.01	18	18, 23	
PTK1	Product Storage Tank No. 1	PM/PM2.5/PM10	<0.01	---	17, 18	18, 23	

Major NSR Summary Table

Permit Number: 133873 and PSDTX463			Issuance Date: 05/31/2018				
			Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	lb/hr	TPY (4)	Special Condition/ Application Information	Special Condition/ Application Information	Special Condition/ Application Information
PTK2	Product Storage Tank No. 2	PM/PM2.5/PM10	<0.01	---	17, 18	18, 23	
PTK3	Product Storage Tank No. 3	PM/PM2.5/PM10	<0.01	---	17, 18	18, 23	
PTK4	Product Storage Tank No. 4	PM/PM2.5/PM10	<0.01	---	17, 18	18, 23	
PTK5	Product Storage Tank No. 5	PM/PM2.5/PM10	<0.01	---	17, 18	18, 23	
PTK6	Product Storage Tank No. 6	PM/PM2.5/PM10	<0.01	---	17, 18	18, 23	
PTK6b	Pulling Tank	PM/PM2.5/PM10	<0.01	---	17, 18	18, 23	
PTK7	Product Storage Tank No. 7	PM/PM2.5/PM10	<0.01	---	17, 18	18, 23	
PTK800	Product Storage Tank No. 800	PM/PM2.5/PM10	<0.01	---	17, 18	18, 23	
PTK9	Burquist Tank	PM/PM2.5/PM10	<0.01	---	17, 18	18, 23	
GPPTKS	All Product Storage Tanks	PM/PM2.5/PM10	---	<0.01	17, 18	18, 23	
LABSMP	Lab Sampling	PM/PM2.5/PM10	<0.01	<0.01			
SHIPSMP	Product Shipping Sampling	PM/PM2.5/PM10	<0.01	<0.01			
RSMP	Reactor Sampling	PM/PM2.5/PM10	<0.01	<0.01			
FANSMP	Fan Sampling	PM/PM2.5/PM10	<0.01	<0.01			
FEEDSMP	Feedstock Sampling	VOC	<0.01	<0.01		23	
FUG3	Equipment Leak Fugitives	VOC	1.10	8.30		23	
1 (5)	Unit 1 Bypass Stack	NOx	0.52	---		13	
		CO	0.44	---		13	

Major NSR Summary Table

Permit Number: 133873 and PSDTX463			Issuance Date: 05/31/2018				
			Emission Rates		Monitoring and Testing Requirements	Recordkeeping Requirements	Reporting Requirements
Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	lb/hr	TPY (4)	Special Condition/ Application Information	Special Condition/ Application Information	Special Condition/ Application Information
		VOC	0.03	---		13	
		PM/PM2.5/PM10	0.04	---	18	13, 18, 23	
		SO2	<0.01	---		13	
5 (5)	Unit 2 Bypass Stack	NOx	0.52	---		13	
		CO	0.44	---		13	
		VOC	0.03	---		13	
		PM/PM2.5/PM10	0.04	---	18	13, 18, 23	
		SO2	<0.01	---		13	
8 (5)	Unit 3 Bypass Stack	NOx	0.52	---		13	
		CO	0.44	---		13	
		VOC	0.03	---		13	
		PM/PM2.5/PM10	0.04	---	18	13, 18, 23	
		SO2	<0.01	---		13	
1, 5, 8 (5)	Unit 1, Unit 2 and Unit 3 Bypass Stacks	NOx	---	0.38		13	
		CO	---	0.32		13	
		VOC	---	0.02		13	
		PM/PM2.5/PM10	---	0.03	18	13, 18, 23	
		SO2	---	<0.01		13	

(1) Emission point identification – either specific equipment designation or emission point number from plot plan.

(2) Specific point source name. For fugitive sources use area name or fugitive source name.

(3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
NO_x - total oxides of nitrogen
SO_2 - sulfur dioxide
H_2S - hydrogen sulfide
CS_2 - carbon disulfide
COS - carbonyl sulfide
HCN - hydrogen cyanide

NH_3	- ammonia
PM	- total particulate matter, suspended in the atmosphere, including PM/PM10 and $PM_{2.5}$, as represented
PM/PM10	- total particulate matter equal to or less than 10 microns in diameter, including $PM_{2.5}$, as represented
$PM_{2.5}$	- particulate matter equal to or less than 2.5 microns in diameter
CO	- carbon monoxide
HAP	- hazardous air pollutant as listed in § 112(b) of the Federal Clean Air Act or Title 40 Code of Federal Regulations Part 63, Subpart C

(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.

(5) Emissions from reactor startup.

Texas Commission on Environmental Quality
Air Quality Permit

A Permit Is Hereby Issued To
Continental Carbon Company
Authorizing the Construction and Operation of
Continental Carbon Sunray Plant
Located at **Sunray, Moore County, Texas**
Latitude 35° 58' 51" Longitude −101° 53' 27"

Permit: 133873 and PSDTX463

Revision Date: May 31, 2018

Expiration Date: February 16, 2026

For the Commission

1. **Facilities** covered by this permit shall be constructed and operated as specified in the application for the permit. All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. Variations from these representations shall be unlawful unless the permit holder first makes application to the Texas Commission on Environmental Quality (commission) Executive Director to amend this permit in that regard and such amendment is approved. [Title 30 Texas Administrative Code (TAC) Section 116.116 (30 TAC § 116.116)] [1]
2. **Voiding of Permit**. A permit or permit amendment is automatically void if the holder fails to begin construction within 18 months of the date of issuance, discontinues construction for more than 18 months prior to completion, or fails to complete construction within a reasonable time. Upon request, the executive director may grant an 18-month extension. Before the extension is granted the permit may be subject to revision based on best available control technology, lowest achievable emission rate, and netting or offsets as applicable. One additional extension of up to 18 months may be granted if the permit holder demonstrates that emissions from the facility will comply with all rules and regulations of the commission, the intent of the Texas Clean Air Act (TCAA), including protection of the public's health and physical property; and (b)(1)the permit holder is a party to litigation not of the permit holder's initiation regarding the issuance of the permit; or (b)(2) the permit holder has spent, or committed to spend, at least 10 percent of the estimated total cost of the project up to a maximum of $5 million. A permit holder granted an extension under subsection (b)(1) of this section may receive one subsequent extension if the permit holder meets the conditions of subsection (b)(2) of this section. [30 TAC § 116.120]
3. **Construction Progress**. Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the commission not later than 15 working days after occurrence of the event. [30 TAC § 116.115(b)(2)(A)]
4. **Start-up Notification**. The appropriate air program regional office shall be notified prior to the commencement of operations of the facilities authorized by the permit in such a manner that a representative of the commission may be present. The permit holder shall provide a separate notification for the commencement of operations for each unit of phased construction, which may involve a series of units commencing operations at different times. Prior to operation of the facilities authorized by the permit, the permit holder shall identify the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program). [30 TAC § 116.115(b)(2)(B)]
5. **Sampling Requirements**. If sampling is required, the permit holder shall contact the commission's Office of Compliance and Enforcement prior to sampling to obtain the proper data forms and procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The permit holder is also responsible for providing sampling facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC § 116.115(b)(2)(C)]
6. **Equivalency of Methods.** The permit holder must demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the permit. Alternative methods shall be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the permit. [30 TAC § 116.115(b)(2)(D)]
7. **Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and

operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction in a timely manner; comply with any additional recordkeeping requirements specified in special conditions in the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC § 116.115(b)(2)(E)]

8. **Maximum Allowable Emission Rates**. The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources--Maximum Allowable Emission Rates." [30 TAC § 116.115(b)(2)(F)] [1]
9. **Maintenance of Emission Control**. The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification in accordance with 30 TAC §101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC§ 116.115(b)(2)(G)]
10. **Compliance with Rules**. Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition is applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC § 116.115(b)(2)(H)]
11. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC § 116.110(e)]
12. **There** may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC § 116.115(c)]
13. **Emissions** from this facility must not cause or contribute to "air pollution" as defined in Texas Health and Safety Code (THSC) §382.003(3) or violate THSC § 382.085. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.
14. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit. [1]

[1] Please be advised that the requirements of this provision of the general conditions may not be applicable to greenhouse gas emissions.

Special Conditions

Permit Numbers 133873 and PSDTX463

1. This permit authorizes carbon black manufacturing (furnace black), pelletizing, handling, storage, packaging, and shipping facilities and ancillary support facilities, including feedstock handling and storage facilities located at 11702 Carbon Black Road, Sunray, Moore County.

    A. This permit authorizes only those sources of emissions located at this site that, along with their emissions point numbers (EPNs), are listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates." The nature and rates of air contaminants authorized from each source/facility are limited to those listed in the maximum allowable emission rates table (MAERT) for the named source/facility and its respective EPN.

    B. Planned maintenance, startup, and shutdown (MSS) activities and related emissions are authorized for the sources and activities described in and limited by the special conditions and MAERT of this permit. No other MSS activities and emissions are authorized by this permit for the facilities listed on the MAERT.

    C. This permit does not include the facilities or MSS activities at the site listed in Attachment I or Attachment II, except as noted in the MAERT. Instead, these facilities are authorized by a permit-by-rule (PBR) under Title 30 Texas Administrative Code (30 TAC) Chapter 106, standard exemption, exemption from permitting, or are a de minimis source listed under 30 TAC § 116.119. The lists provided in Attachments I and II are not intended to be all-inclusive and can be altered at the site without modifications to this permit.

2. Within 180 days of the issuance date of this permit the holder of the permit shall physically identify and mark in a conspicuous location the EPN for each source listed in the MAERT. A listing containing the EPN and source/facility names shall be maintained at the site. Source/facility names shall be those established in this permit with the associated facility identification number as established in the point source emissions inventory for the source. Fugitive emissions sources need not be labeled, but their location and the EPN for each shall be annotated on a current plot plan kept for that purpose.

Federal Requirements

3. The relevant facilities authorized under this permit are subject to the applicable requirements of Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63), National Emission Standards for Hazardous Air Pollutants for Source Categories as follows:

    A. Subpart A, General Provisions;

    B. Subpart SS, Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process; and

    C. Subpart YY, Generic Maximum Achievable Control Technology Standards.

Operational Limitations

4. The carbon black production rate shall not exceed 69.5 million pounds per year for Unit 1, Unit 2, or Unit 3 each.

5. Site-wide feedstock sulfur limitations.

A. The total sulfur content of the carbon black feedstock input to each individual reactor is limited to 1.75 weight percent on a 30-day rolling average, and to 1.5 weight percent on a 365-day rolling average.

(1) 30-day rolling average sulfur content weight percent shall mean the arithmetic average of weighted daily average sulfur contents in feedstock to all reactors as a weight percent during the preceding 30 operating days.

(2) 365-day rolling average sulfur content weight percent shall mean the arithmetic average of weighted daily average sulfur contents in feedstock to all reactors as a weight percent during the preceding 365 operating days.

B. The sulfur content of the feedstock for the 30-day averaging period shall be determined by the methods specified in Paragraph 8(c) of the Consent Decree referenced in Special Condition No. 24.

C. The sulfur content of the feedstock for the 365-day averaging period shall be determined by the methods specified in Paragraph 8(e) of the Consent Decree referenced in Special Condition No. 24.

D. The total sulfur content of the carbon black feedstock oil shall be sampled five (5) times per week. Each sample will be collected on a different day. The total sulfur content of the carbon black feedstock oil from Tank No. 4 is limited to 1.75 weight percent for each sample collected.

6. The waste gas boiler burner is limited to a nitrogen oxides (NO_x) emission rate of 0.08 lb/MMBtu when firing natural gas.

7. While firing carbon black feedstock oil in any of the reactors the waste gas boiler exhaust NO_x concentrations are limited as follows:

Table 1 - Waste Gas Boiler Exhaust NO_x Concentration Limits

Standard	NO_x Concentration Limit (ppmvd)	Reference O_2 Concentration (%)	Rolling Averaging Period
Interim	375	0.0	7-day
	300	0.0	365-day
Final	Greater than 120 and less than 375	0.0	7-day
	Greater than 80 and less than 300	0.0	365-day

8. Emissions of NO_x from the waste gas boiler from heat load operations, startup, and shutdown are limited to 50 tons per year (tpy) over a rolling 365 day period.

9. After September 30, 2019 NO_x emissions from the waste gas boiler, the pellet dryers and flares are limited to 465 tpy on a calendar year basis.

10. Flare operations after September 30, 2018 are limited to the following:

A. Any unplanned steam reduction/outage at the steam host;

B. Inspection and maintenance of the waste gas boiler shall be limited to 168 hr/yr per rolling 12-month period; and

C. A sudden unavoidable breakdown of the waste gas boiler and associated equipment.

11. All fixed-roof carbon black oil storage tanks shall be equipped for bottom fill or equipped with submerged fill lines.

12. Except for unit startup and shutdown the carbon black reactor tail gas (Operating Circuits, as defined in Special Condition 13A engaged) exiting the Main Bag Filters (MBFs) for Unit 1, Unit 2, and Unit 3 shall be vented as follows:

Table 2 - Carbon Black Reactor Tail Gas Routing and Control - Normal Operations

Carbon Black Production Unit	EPNs	Control Device or Process Equipment	Air Contaminants Controlled	Waste Gas Boiler Control Efficiency (%)	Waste Gas Combustor Control Efficiency (%)
Unit 1	2, 4, and 24	Waste Gas Boiler, Pellet Dryer, Waste Gas Combustors	VOC, CO, HCN,H_2S, CS2, and COS	99	99
Unit 2	4, 6, and 24	Waste gas Boiler, Pellet Dryer, Waste Gas Combustors	VOC, CO, HCN,H_2S, CS2, and COS	99	99
Unit 3	4, 9, and 24	Waste Gas Boiler	VOC, CO, HCN,H_2S, CS2, and COS	99	99

Table 3 - Carbon Black Reactor Tail Gas Routing and Control – Waste Gas Boiler not in Service

Carbon Black Production Unit	EPNs	Control Device or Process Equipment	Air Contaminants Controlled	Flare Control Efficiency (%)	Waste Gas Combustor Control Efficiency (%)
Unit 1	2, 4, and 21	Flare No. 1, Pellet Dryer, Waste Gas Combustors	VOC, CO, HCN,H_2S, CS2, and COS	98	99
Unit 2	4, 6, and 21	Flare No. 1, Pellet Dryer, Waste Gas Combustors	VOC, CO, HCN,H_2S, CS2, and COS	98	99
Unit 3	4, 9, and 23	Flare No. 2	VOC, CO, HCN,H_2S, CS2, and COS	98	99

13. The carbon black reactor tail gas streams exiting Unit 1, Unit 2, and/or Unit 3 may bypass the flares and waste gas boiler (EPNs 21, 23 and 30) and vent to the atmosphere during reactor shutdown/start-up transitions, as limited by this condition and the applicable limitations in the MAERT. The following requirements also apply:

A. The reactor start-up/shutdown transitions include two operating states: "Warm-up Circuits operation" and "Operating Circuits operation" during which emissions are generated. Warm-up Circuits operation is defined as that period of time in reactor start-up/shutdown operations when only pipeline quality sweet natural gas is introduced into the reactor and combusted. Operating Circuits operation is defined as that period of time in reactor start-up/shutdown operations when pipeline quality sweet natural gas is introduced and combusted in the reactor with the concurrent introduction and processing of carbon black feedstock oil into carbon black.

B. Operating records shall be kept for each reactor, and for each period of operation in which emissions are routed to flare Bypass Stacks (EPNs 1, 5, and 8). For each event that emissions are routed to any of the flare Bypass Stack EPNs, the records shall include the start and end date and time, the duration of emissions in hours, the reason emissions were routed to the EPN, and the reactor operating state (i.e., either Warm-up Circuits or Operating Circuits).

Table 4 - Warm-up Circuit Operating Limits

Carbon Black Production Unit	EPNs	Emission Point Name	Fuel Fired During Reactor Startup	Maximum Reactor Startup Time (hr/event)	Site-wide Maximum Reactor Startup Operating Time (hr/rolling 12-month period)
Unit 1	1	Unit 1 MBF Bypass Stack	Natural Gas	96	1,440
Unit 2	5	Unit 2 MBF Bypass Stack	Natural Gas	96	
Unit 3	8	Unit 3 MBF Bypass Stack	Natural Gas	96	

14. Fuel fired at the site shall be limited as follows:

A. Carbon black reactor tail gas shall be fired only in the waste gas boiler (EPN 24), the flares (EPNs 21 and 23) and the waste gas combustors (EPNs 2, 6, and 9).

B. Fuel used in all other gas fired sources shall be limited to pipeline-quality, sweet natural gas containing no more than 0.25 grain of hydrogen sulfide (H_2S) and 5 grains total sulfur per dry standard cubic feet (dscf). Pipeline natural gas as provided by the distributor is assumed to meet this requirement.

15. All fabric filter collection and control devices that limit particulate matter (PM) emissions shall be operated and maintained in a manner consistent with the manufacturer's recommendations for the fabric filter or control device. Copies of the Best Management Practices (BMP) or other written procedures for all fabric filters or control devices shall be kept on site and made available upon request of the Texas Commission on Environmental Quality (TCEQ) or any pollution control program representative with jurisdiction. A log shall be kept on-site which notes each fabric filter or control device related maintenance and repair activity, the date of each activity, and department completing the work.

16. Particulate matter waste collected from any fabric filter collection system shall be managed in such a manner to minimize fugitive emissions while the particulate matter waste material remains on-

site. Good housekeeping shall be used to promptly clean up any spills of particulate matter materials that could become airborne, such as carbon black, in order to minimize entrainment of the materials into the ambient air. All spent fabric filters used for the control of PM shall be removed from the cartridge or bag house control system and disposed of in such a manner that minimizes trapped PM from escaping into the atmosphere.

17. Sources of particulate matter emissions served by fabric filters shall comply with the requirements of this Special Condition as follows:

A. All fabric filter media shall have a minimum particulate matter design control efficiency as follows:

Table 5 - Particulate Matter Control Device Efficiency Requirements

EPN	Emission Point Name	Type of Filter Media	PM_{10} Control Efficiency (%)	$PM_{2.5}$ Control Efficiency (%)
2	Unit 1 Exhaust Bag Filter Stack	Bag	99.95	99.95
6	Unit 2 Exhaust Bag Filter Stack	Bag	99.95	99.95
9	Unit 3 Exhaust Bag Filter Stack	Bag	99.95	99.95
15a	Large Shipping Dock Cleanup Bag Filter	Bag	99.95	99.95
15b	Small Shipping Dock Cleanup Bag Filter	Bag	99.95	99.95
25	Unit No. 1 Black Cooler Bag Filter	Bag	99.95	99.95
26	Unit No 1 Cleanup Bag Filter	Bag	99.95	99.95
27	Unit No. 2 Black Cooler Bag Filter	Bag	99.95	99.95
28	Unit No. 2 Cleanup Bag Filter	Bag	99.95	99.95
29	Unit No. 3 Black Cooler Bag Filter	Bag	99.95	99.95
30	Unit No. 3 Product Bag Filter	Bag	99.95	99.95
PTK1 – PTK 6, PTK6b, PTK7, PTK800, PTK9	Product Storage Tanks	Bag	99.95	99.95

B. The filter media shall be attached to the product storage tank exhaust vents with reusable band clamps that are designed for easy one hand tightening. The use of duct tape or any other adhesive tape or adhesive material to secure the filter media is allowed, if used in addition to the band clamps.

C. The Product Storage Tank filter systems shall be inspected once each day that the tank is storing product for holes, tears or detachment and the filter media shall be replaced when damaged or defective or during the Unit Annual Turnaround ("UTAR"). Records of filter media replacements shall be maintained as required by Special Condition No. 19D.

18. Visible emissions and opacity related requirements that apply to the sources and emissions points authorized in this permit are as follows:

A. Visible emissions from any source of any duration and opacity of any emissions plume greater than zero percent (not including uncombined water) from any source (facility), building containing a source, or EPN authorized in this permit are prohibited except as indicated in this Special Condition.

B. Visible emissions from the PM sources listed below are required to install and continuously operate a PM Early Warning (40% of scale) System by March 31, 2016 and comply with the Action Level (to be approved by the United States Environmental Protection Agency (EPA), per Consent Decree – Appendix D) by May 1, 2016. After May 1, 2016, if an alarm (50% of scale) is triggered for any PM Early Warning System, the requirements in the Consent Decree – Appendix D shall be followed. Prior to May 1, 2016, each source is to be evaluated daily for visible emissions, using Test Method (TM) 22. If visible emissions are identified for any of the following sources, the source of the visible emissions shall be identified and repaired. If, after 24 hours of identifying a TM 22 visible emission the visible emissions remain, a TM 9 Trained Observer shall conduct a visible assessment every 8 hours until the opacity is reduced to below 5%.

Table 6 - Visible Emissions/Opacity Limitations – PM Early Warning System

EPN	Emission Point Name	Frequency of Observation	Opacity/Visible Emissions Limitation
2	Unit 1 Exhaust Bag Filter Stack	Daily	Action Level – 40 % of scale of particulate detector
6	Unit 2 Exhaust Bag Filter Stack	Daily	Action Level – 40 % of scale of particulate detector
9	Unit 3 Exhaust Bag Filter Stack	Daily	Action Level – 40 % of scale of particulate detector
30	Unit No. 3 Process Bag Filter	Daily	Action Level – 40 % of scale of particulate detector

C. Visible emissions from the particulate matter (PM) sources listed below are limited as follows:

Table 7 - Visible Emissions/Opacity Limitations

EPN	Emission Point Name	Frequency of Observation	Opacity/Visible Emissions Limitation	EPA Test Method
15a	Large Shipping Dock Cleanup Bag Filter	Quarterly	No Visible Emissions	22
15b	Small Shipping Dock Cleanup Bag Filter	Quarterly	No Visible Emissions	22
25	Unit No. 1 Black Cooler Bag Filter	Daily	No Visible Emissions	22

EPN	Emission Point Name	Frequency of Observation	Opacity/Visible Emissions Limitation	EPA Test Method
26	Unit No 1 Cleanup Bag Filter	Quarterly	No Visible Emissions	22
27	Unit No. 2 Black Cooler Bag Filter	Daily	No Visible Emissions	22
28	Unit No. 2 Cleanup Bag Filter	Quarterly	No Visible Emissions	22
29	Unit No. 3 Black Cooler Bag Filter	Daily	No Visible Emissions	22
PTK1 – PTK 6, PTK6b, PTK7, PTK800, and PTK9	Product Storage Tanks	Quarterly	No Visible Emissions	22
FUG1 and FUG2	Product Handling Fugitives No. 1 and No. 2	Daily	No Visible Emissions at any Time	22
24	Waste Gas Boiler	Daily	No Visible Emissions at any Time	22
1, 5, and 8	Unit 1, Unit 2 and Unit 3 Bypass Stacks	Daily During Unit Startups and Shutdowns (Daytime Only)	No Visible Emission	22
			If Visible Emissions are Observed Perform TM 9, Limit is 5%	22, and if visible use TM 9
21	Flare No. 1	Daily (Daytime Only)	No Visible Emission	22
			If Visible Emissions are Observed Perform TM 9, Limit is 5%	22, and if visible use TM 9
23	Flare No. 2	Daily (Daytime Only)	No Visible Emission	22
			If Visible Emissions are Observed Perform TM 9, Limit is 5%	22, and if visible use TM 9

D. The visible emissions observations shall be performed for the Table 7 sources as follows, in accordance with the Consent Decree dated 5-7-2015, Paragraph 33, and Appendix D. Observations shall be made at least 15 feet and no more than 0.25 miles from the emission

point(s). Up to three emissions points may be read concurrently, provided that all three emissions points are within a 70 degree viewing sector or angle in front of the observer, such that the proper sun position (i.e., at the observer's back) can be maintained for all three emission points. Contributions from uncombined water shall not be included in determining compliance with this condition. Visible emissions observations shall be of at least 15 seconds duration for each of the emission points in accordance with TM 9 of 40 CFR Part 60, Appendix A-4 (Method 9) when TM 9 is applicable and of momentary duration for each of the emission points where TM 22 of 40 CFR Part 60, Appendix A-4 (Method 22) is applicable. Visible emissions observations shall be documented and recorded when they are conducted. The source shall be operating when the visible emissions observation is made.

(1) If visible emissions are observed at any of the emission points where TM 9 is applicable for more than the TM 9 allowable limits, or if visible emissions of any duration are observed where TM 22 is applicable from any other EPNs referenced in this Special Condition, then the following requirements also apply:

(a) Corrective actions will be taken, the source of the emissions will be isolated, or the emissions unit will be shutdown to eliminate visible emissions. The corrective actions may include change in operation, throughput, and other actions deemed appropriate without shutting down the emission source. The corrective actions taken shall be documented. If the corrective action results in no visible emissions, where TM 22 is applicable, no further action will be taken. If visible emissions continue, TM 9 opacity observations will be conducted as described in (b) below.

(b) If visible emissions occur for a period of 24 hours since the visible emissions were identified, an opacity observation shall be conducted for the EPN and documented in accordance with TM 9. If visible emissions exceed 5 minutes in duration or are greater than 5% opacity during the TM 9 observation, then an evaluation of the source of the visible emissions and opacity, including an evaluation of the operating parameters of the source shall be conducted and documented within 24 hours of the observation. Steps shall be taken immediately to minimize and restore, if possible, a condition of no visible emissions for the EPN. The steps necessary for the restoration to a condition of operations with no visible emissions for the EPN shall be accomplished and documented by performance of a visible emissions observation within one week of first observation of visible emissions.

(c) The documentation of the evaluation of the source of the visible emissions shall include at least the date, time, and results of the visible emissions and opacity observations conducted. The documentation shall also include the probable cause of the visible emissions, the steps taken to restore the system to a condition of no visible emissions, including a description of any corrective action taken, the person or persons conducting the various observations and restoration activities, and the results of the visible emissions observation used to demonstrate that the system has been restored to a condition of no visible emissions.

(d) In the event that operations with no visible emissions are unable to be restored within the week of first observation of visible emissions, then TM 9 opacity observations, comprised of 10 six-minute observation periods, shall be conducted and documented each operating day until the source is restored to an operating condition of no visible emissions.

E. Visible emissions or opacity observations for any source authorized by this permit shall be made upon demand of a representative of the TCEQ or any air pollution control program with jurisdiction. When such observations are required, the methods used and the observation period duration shall be as specified in Special Conditions No. 18.B and 18.C. unless otherwise specified by the person requiring the observation to be conducted.

Continuous Demonstration of Compliance

19. Continuous compliance with the emission limits in the MAERT for the process filters, the vacuum filters, flares and waste gas boiler shall be demonstrated as follows:

A. The MBF and Exhaust Bag Filters (EBF) shall be operated and maintained in accordance with the manufacturer's recommendations so as to assure that the minimum collection efficiency is met at all times when the carbon black processing equipment is in operation.

(1) The holder of this permit shall install, calibrate, and maintain devices to monitor pressure drop across the MBF and EBF bags. Those pressure drop monitoring devices shall be capable of measuring differential pressure either between 1.0 and 4.0 inches water column 1.87 millimeters of mercury (mmHg) to 7.47 mmHg), or as otherwise defined by the device manufacturer. The pressure drop monitoring device for each system shall be calibrated at least annually in accordance with the manufacturer's specifications and shall be accurate to either within a range of ± 0.5 inch water gauge pressure (± 125 pascals) or a span of ± 3.0 percent.

(2) Pressure drop readings shall be recorded at least once per day that the system is required to be operated. MBF and EBF Fabric filter bags shall be replaced whenever the pressure drop across the filter bags no longer meets the manufacturer's recommendation. Records of maintenance performed, including dates of filter bag replacements, shall be included in a log as they occur. If the filter system operating performance parameters are outside of the differential pressure limits or the manufacturer's recommended operating range, the affected facility shall not operate until the collection equipment is repaired.

B. The Process Filters (excluding the MBF and EBF) and Cleanup Bag Filters shall be operated and maintained in accordance with the filter bag manufacturer's recommendations so as to assure that the minimum bag filter or cartridge collection efficiency is met at all times, when the carbon black processing equipment is in operation. The holder of this permit shall install, calibrate, and maintain devices to monitor pressure at the filter bags or cartridges. During the Unit Annual Turnaround, the pressure monitor devices shall be inspected and zeroed. Those pressure monitoring devices shall be capable of measuring inlet pressure between 0.0 and 25.0 inches water column (0.0 to 46.66 mmHg), or as otherwise defined by the device manufacturer. The water column pressure device for each system shall be checked daily. If the pressure exceeds 25 inches of water column (46.66 mmHg), Operations will take corrective action to return the pressure to within the normal range. If the normal range is not achieved, the fabric filter bags or cartridges shall be replaced to return the pressure back to normal. Fabric filter bags or cartridges shall also be replaced whenever necessary or scheduled. Records of maintenance performed, including dates of fabric filter bag or cartridge replacements, shall be included in a log as they occur. If the fabric filter bag or cartridge system operating performance parameters are outside of the pressure limits or the manufacturer's recommended operating range, the affected facility shall remedy the issue.

C. The results of the pressure monitoring requirements of Special Conditions No. 19.A and 19.B and the visible emissions and opacity requirements of Special Condition No. 18 shall be used to demonstrate ongoing compliance with PM emissions limitations of the MAERT.

D. All enclosures, ductwork, and particulate matter collection systems routing carbon black originating in part or in whole from any reactor shall be effective in collecting carbon black from the intended equipment and in preventing fugitive emissions. The duct and collection system shall be maintained free of holes, cracks, and other conditions that would reduce the efficiency of the carbon black collection system. To the extent that design will allow, the exterior of all ventilation systems in this facility will be visually inspected on a daily basis by facility personnel. Visible leaks shall, with every reasonable effort, be mitigated as soon as possible, and finally repaired within a week of detection. A log shall be kept on-site which notes each system or ductwork related maintenance and repair activities, the date of each inspection, name of the inspector, the purpose of the inspection, and the nature of any repairs and maintenance work performed. Leaks of tail gas shall be addressed under the provisions of 40 CFR Part 63, Subpart YY.

E. Planned maintenance on the particulate matter collection and control system shall be performed only during periods when the facilities generating the emissions controlled by the PM collection and control system are not in operation. Preventative maintenance, scheduled maintenance, and repairs performed on any abatement device shall be recorded as they occur.

F. Thermal destruction of volatile organic compounds, carbon monoxide, hydrogen cyanide, hydrogen sulfide, carbon disulfide, and carbonyl sulfide:

(1) The Waste Gas Combustors (EPNs 2, 4, 6, and 9) shall operate at the temperature necessary to achieve compliance with the MAERT limitations.

(a) The temperature monitoring device should be installed in the combustion chamber or immediately downstream of the combustion chamber.

(b) Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications, other written procedures that provide an adequate assurance that the device is calibrated accurately, or at least annually, whichever is more frequent, and shall be accurate to ± 3% of scale.

(c) Each monitoring device shall monitor and record the temperature at least once every 15 minutes.

G. The Flares (EPNs 21 and 23) shall be designed and operated in accordance with the following requirements:

(1) The combined assist natural gas and waste stream to the Flares shall meet the 40 CFR § 63.11 specifications of minimum hydrogen content and maximum tip velocity under normal, upset, and maintenance flow conditions. Compliance with this condition shall be demonstrated by testing required in item (3) below. Flare monitoring per 40 CFR § 63.11 may be requested by the TCEQ Regional Office to demonstrate compliance with this condition.

(2) The Flares shall be operated with a flame present at all times tail gas is being produced or have a constant pilot flame. The pilot flame shall be monitored by a thermocouple, or an infrared monitor and pilot flame monitoring.

(3) No visible emissions except as permitted in Special Conditions No. 18.B and 18.C.

(4) The holder of this permit shall perform testing per 40 CFR § 63.11 or an approved equivalent to demonstrate the percent hydrogen in the waste stream to the Flare upon request of the TCEQ Amarillo Regional Director. Records of all test results shall be maintained for five years and shall be made available to the TCEQ Amarillo Regional Director upon request.

H. The permit holder shall install, calibrate, and maintain a CEMS to measure and record the in-stack concentration of NO_x, CO, SO_2, and O_2 from the waste gas boiler (EPN 24) by September 1, 2020 as required by EPA Consent Decree, Case 5:15-cv-00290-F, effective May 7, 2015 and amended December 22, 2017. **(05/18)**

(1) The NO_x and O_2 CEMS shall meet the design and performance specifications, pass the field tests, and meet the installation requirements and the data analysis and reporting requirements specified in the applicable Performance Specification Nos. 2 and 3, 40 CFR Part 60, Appendix B. The permit holder shall assure that the CEMS meets the applicable quality-assurance requirements specified in 40 CFR Part 60, Appendix F, Procedure 1. Relative accuracy exceedances, as specified in 40 CFR Part 60, Appendix F, 5.2.3 and any CEMS downtime shall be reported to the TCEQ Amarillo Regional Director, and necessary corrective action shall be taken. Supplemental stack concentration measurements may be required at the discretion of the TCEQ Amarillo Regional Director.

(2) The CO CEMS shall meet the design and performance specifications, pass the field tests, and meet the installation requirements and the data analysis and reporting requirements specified in the applicable performance specifications in 40 CFR Part 60, Performance Specification No. 4. The CEMS shall meet the applicable quality assurance requirements specified in 40 CFR Part 60, Appendix F, except that cylinder gas audits (CGA) conducted in all four quarters may be used in lieu of the annual relative accuracy test audit. Quarterly CGAs shall be conducted at least 60 days apart.

(3) The SO_2 CEMS shall meet the design and performance specifications, pass the field tests, and meet the installation requirements and the data analysis and reporting requirements specified in the applicable performance specifications in 40 CFR Part 60, Performance Specification No. 2. The CEMS shall meet the applicable quality assurance requirements specified in 40 CFR Part 60, Appendix F, except that cylinder gas audits (CGA) conducted in all four quarters may be used in lieu of the annual relative accuracy test audit. Quarterly CGAs shall be conducted at least 60 days apart.

(4) The holder of this permit shall either measure, or develop a program to calculate, the total mass flow rate through the stacks to ensure continuous compliance with the emission limitations specified in the MAERT. The permit holder shall calculate hourly mass emissions in lbs/hr using the measured or calculated exhaust flow rate and the measured concentrations of NO_x, CO and SO_2 from the CEMS required in Special Condition No. 19. The hourly calculated values will be cumulatively added during each hour of the month and stored on a computer hard drive or other TCEQ-accepted computer media. Records of this information shall also be available in a form suitable for inspection.

(5) Relative accuracy exceedances (as specified in 40 CFR 60, Appendix F), CGA exceedances of ±15% accuracy, and any CEMS downtime shall be recorded and provided upon request to the TCEQ Amarillo Regional Director, and necessary corrective action shall be taken. This information may be reported semiannually to the Amarillo Regional Office with applicable NSPS or Title V deviation reporting.

Supplemental stack sampling may be required at the discretion of the TCEQ Amarillo Regional Director.

(6) If any emission monitor fails to meet specified performance, it shall be repaired or replaced as soon as safety procedures allow. If repair or replacement is not immediately feasible, the monitor shall be repaired or replaced no later than seven days after the failure is first detected by an employee at the site, unless written permission is obtained from the TCEQ which allows for longer repair/replacement time. The holder of this permit shall develop an operation and maintenance program (including stocking necessary spare parts) to ensure that the continuous monitors are available as required. A monitor with downtime due to breakdown or repair of more than 10% of the facility operating time for any calendar year will be considered as a defective monitor and the monitor must be replaced within two weeks after exceeding the 10% threshold.

(7) For full operating hours, the monitoring data shall be stored in a format that allows the data to be reduced to hourly average values, using a minimum of four approximately equally-spaced data points from each one-hour period. For hours in which monitoring system quality assurance, maintenance, breakdowns, or repairs occur, at least two valid data points separated by a minimum of 15 minutes (where the unit operates for more than one quadrant of an hour) will be sufficient for the hour to be considered a valid hour.

(8) The valid hourly average data from the CEMS will be used to determine compliance with the concentration limits of Special Condition No. 7 and, in conjunction with the program required by Special Condition No. 19, the hourly emission rate limits in the MAERT. Only quality assured data from the CEMS shall be used to identify excess emissions, except that during periods where the CEMS data is unavailable or not quality assured, compliance may alternatively be determined by using manufacturer emission factors or valid and representative data previously measured and recorded by the unit's CEMS under similar operating conditions. Periods where the missing data substitution procedures in Subpart D of 40 CFR Part 75 are applied are to be reported as monitor downtime in the excess emissions and monitoring performance report required in 40 CFR § 60.7(c).

(9) The TCEQ Regional Office in Amarillo shall be notified at least 30 days prior to any relative accuracy test audit (RATA) in order to provide them the opportunity to observe the testing.

Initial Determination of Compliance

20. Sampling ports and platforms shall be incorporated into the design of all exhaust stacks according to the specifications set forth in the enclosure entitled "Chapter 2, Stack Sampling Facilities." Alternate sampling facility designs may be submitted for approval by the TCEQ Regional Director.

21. The holder of this permit shall perform stack sampling and other testing as required to establish the actual pattern and quantities of air contaminants emitted into the atmosphere. The holder of this permit is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at his expense. Sampling shall be conducted in accordance with the appropriate procedures of the TCEQ Sampling Procedures Manual and in accordance with the appropriate U.S. Environmental Protection Agency (EPA) Reference Methods, as referenced in Special Condition 21.C.

A. Performance testing for NO_x, CO, and SO_2 shall be conducted on the waste gas boiler stack (EPN 24) within 180 days of introduction of waste gas to the boiler unless CEMS for that pollutant has been installed, calibrated, and in operation per Special Condition 19H. Specifically, a performance test is required to demonstrate that the emission limits on the MAERT are met for EPN 24. **(05/18)**

B. Performance testing shall be conducted within 180 days of the date of request for sampling for EPN 24 pollutants TRS (total reduced sulfur compounds), VOC, PM_{10}, $PM_{2.5}$, and NH_3 and all pollutants as listed in Table 8 for EPNs 2, 4, 6, 9, 25, 27, 29, and 30. Specifically, a performance test may be required to demonstrate that the emission limits in the MAERT are met. **(05/18)**

Table 8 - Air Contaminant and Source Sampling Requirements

		Air Contaminant							
EPN	**Emission Point/ Source Name**	**NO_x**	**CO**	**SO_2**	**TRS (H_2S/ COS/ CS_2)†**	**VOC**	**PM_{10}***	**$PM_{2.5}$***	**NH_3**
24	Waste Gas Boiler	X	X	X	X	X	X	X	X
2	Unit 1 Exhaust Bag Filter Stack	X	X	X	X	X	X	X	X
4	Pellet Dryer Firebox Stack	X	X	X	X	X	X	X	X
6	Unit 2 Exhaust Bag Filter Stack	X	X	X	X	X	X	X	X
9	Unit 3 Exhaust Bag Filter Stack	X	X	X	X	X	X	X	X
25	Unit No. 1 Black Cooler Bag Filter						X	X	
27	Unit No. 2 Black Cooler Bag Filter						X	X	
29	Unit No. 3 Black Cooler Bag Filter						X	X	
30	Unit No. 3 Product Bag Filter						X	X	

† Total Reduced Sulfur (TRS), hydrogen sulfide (H_2S), carbonyl sulfide (COS), carbon disulfide (CS_2)

*Includes filterable and condensable PM, PM_{10}, and $PM_{2.5}$ emissions.

C. Performance testing shall be conducted using the relevant EPA TM found in 40 CFR Part 60, Appendix A-1 through A-7. The TMs to be used include:

(1) Method 1 or 1A as appropriate for stack sample location selections and number of traverse points.

(2) Method 2, 2A, 2C, 2D, 2F, or 2G as appropriate for stack volumetric flow rate determination.

(3) Method 3, 3A, or 3B as appropriate for dry molecular weight of the stack gas.

(4) Method 4 for moisture content of the stack gas.

(5) Method 5, or 5B, as appropriate for PM emissions determinations.

(6) Method 5 or 202 as appropriate for condensable PM emissions determinations.

(7) Method 6 for sulfur dioxide determinations.

(8) Method 7B, 7D, and 7E as appropriate for nitrogen oxide determinations.

(9) Method 10 or 10B as appropriate for carbon monoxide determinations.

(10) Method 15 for of hydrogen sulfide, carbonyl sulfide, and carbon disulfide determinations as total reduced sulfur.

(11) Method 25, 25A, or 25B as appropriate for total gaseous non-methane organic compound determinations.

D. A minimum of three valid test runs are needed to comprise a PM performance test. The minimum sampling time for each test run shall be at least 60 minutes. The minimum sample volume for each test run shall be at least 30 dscf.

E. The TCEQ Amarillo Regional Office shall be contacted as soon as testing is scheduled, but not less than 45 days prior to sampling to schedule a pretest meeting, if necessary. The notice shall include:

(1) Date for pretest meeting.

(2) Date sampling will occur.

(3) Name of firm conducting sampling.

(4) Sampling equipment to be used.

(5) Method or procedure to be used in sampling.

The purpose of the pretest meeting is to review the necessary sampling and testing procedures, to provide the proper data forms for recording pertinent data, and to review the format procedures for submitting the test reports. A written proposed description of any deviation from sampling procedures or methods specified in permit conditions, the TCEQ or the EPA sampling procedures shall be made available to the TCEQ prior to the pretest meeting. The TCEQ Regional Director shall approve or disapprove of any deviation from specified sampling procedures or methods. Requests to waive testing for any pollutant specified in this condition shall be submitted to the TCEQ Office of Air, Air Permits Division. Test waivers and alternate/equivalent procedure proposals for testing, which must have the EPA approval, shall be submitted to the TCEQ Amarillo Regional Office.

F. The plant shall operate at representative operating conditions for the process, unless the Administrator specifies or approves alternate operating conditions during stack emissions testing. Primary operating parameters that enable determination of production rate shall be monitored and recorded during the stack test. These parameters shall be determined at the pretest meeting and shall be stated in the sampling report. If the plant is unable to operate at maximum rates during testing, then future production rates may be limited to the rates established during testing. Additional stack testing may be required when higher production rates are achieved.

G. Two copies of the final sampling report shall be forwarded to the TCEQ within 30 days after receipt of sampling report, but no more than 75 days after testing. Sampling reports shall comply with the attached provisions of Chapter 14 of the TCEQ Sampling Procedures Manual. The reports shall be distributed as follows:

One copy to the TCEQ Amarillo Regional Office.

One copy to the Central File Room, Austin.

H. Additional performance tests for sources may be required by the TCEQ Amarillo Regional Director. Any required performance tests must be completed within the manner and timeframe requested by the Regional Director.

Authorized Planned MSS Specific Activities

22. The planned MSS activities authorized at this site in Attachment II are subject to the following:

A. Work practices will be developed, implemented, and documented that are designed to minimize air contaminant emissions during each of these authorized MSS activities by limiting the duration of exposure of contaminants to atmosphere while the activities are underway and storing the spent materials, where possible, in closed containers until properly disposed. The developed work practices shall be modified by the permit holder, as found appropriate, and maintained in electronic or written form.

B. The methods used to estimate the emissions for each of the activities listed in this Special Condition are those based on the permit application supplement dated May 7, 2015. The permit holder shall retain the calculation methods and example calculations for the life of the permit. An evaluation of the emissions factors developed will be conducted and documented by the permit holder annually, and if necessary, updated by permit alteration or amendment, as appropriate.

C. Documentation of planned authorized MSS activities shall include at least the following:

(1) the process unit at which emissions from the MSS activity occurred, including the emission point number and common name of the process unit;

(2) the type of planned MSS activity and the reason for the planned activity;

(3) the common name of the facilities at which the MSS activity and emissions occurred;

(4) the date and time of the MSS activity and its duration; and

(5) the estimated quantity of each air contaminant, or mixture of air contaminants, emitted with the data and methods used to determine it. The emissions shall be estimated using the methods identified in the permit application, consistent with good engineering practice.

All MSS emissions shall be summed monthly and the rolling 12-month emissions shall be updated on a monthly basis.

Recordkeeping

23. General Condition No. 7, regarding information and data to be maintained on file, is supplemented as follows and shall be used to demonstrate compliance with the requirements of the Special Conditions of the permit and the MAERT:

A. Daily records of tail gas combusted in each Flare and the Waste Gas boiler and each Waste Gas Combustor (based on mass and/or energy balance).

B. Copy of Certificate of Analysis of sulfur content for each shipment of carbon black feedstock oil.

C. Record of the daily, if required, analysis of the carbon black feedstock sulfur content of Storage Tank No.4.

D. Daily records of the carbon black feedstock reactor feed rate.

E. Records of pressure monitoring and facility inspections, maintenance, and corrective actions taken, as required under Special Condition No. 19.

F. Records of any visible emissions and opacity observations required under Special Condition No. 18 and records of any facility inspections, maintenance, and corrective actions taken, as required under Special Condition No. 19.

G. Records of the CEMS data of NO_x, CO, SO_2, and O_2 emissions from the waste gas boiler to demonstrate compliance with the performance standards in Special Condition No. 7, the startup and shutdown duration limits in Special Condition No. 8 and the emission rates listed in the MAERT. Records must be kept for all hourly, three-hour rolling, monthly, and 12-month rolling periods corresponding to emission limits. Data retention at intervals less than one hour is not required for normal operation. Periods of MSS should be identified to the nearest minute.

H. Records of the raw data files of all CEMS data including calibration checks and adjustments and maintenance performed on these systems.

I. Records of NO_x emissions to demonstrate compliance with the emission limits of Special Condition Nos. 8 and 9.

J. Records of the dates and times of operation for each flare and the reason for routing emissions to the flares.

K. Records of any performance tests conducted in accordance with Special Condition No. 21 shall be retained for the life of the unit.

L. Records of all work practices developed, and planned MSS activities conducted in accordance with Special Condition No. 22 of this permit. The planned MSS activity records shall at least contain the information required in Special Condition No. 22.

M. Unless otherwise noted in the individual special conditions of this permit, compliance with the limitations in the MAERT shall be demonstrated at least monthly for each source using the records identified in Special Condition No. 23 as follows:

(1) For sources with hourly emission limitations, compliance with pound per hour MAERT limits shall be based on data recorded daily and calculations shall be updated monthly.

(2) For sources with annual MAERT limitations whose method of calculation is not otherwise specified, the annual emissions shall be based on a rolling 12 month emissions total that is calculated using the most recent monthly totals calculated in Special Condition No 23.

N. For sources with daily, hourly, or annual usage limitations, monthly records shall be maintained to demonstrate compliance with the respective limitations. Compliance with annual usage limitations shall be on a 12-month rolling basis.

O. The records required by Special Condition No. 23 shall be maintained in hard copy or electronic format and shall be maintained for at least five years rather than the two-year period specified in General Condition No. 7. This requirement does not apply to records generated prior to September 2013. The records required in Special Condition No. 24A and B shall contain examples of the calculations performed (including units, conversion factors,

transfer efficiency, and emission factors), any assumptions made in the calculations, and the basis for those assumptions. These records will be kept on-site and made available for review upon request by representatives of the TCEQ or any air pollution control agency with appropriate jurisdiction.

EPA Consent Decree

24. The Continental Carbon Company shall comply with all of the requirements in the EPA Consent Decree effective May 7, 2015 for Case 5:15-cv-00290-F. A copy of the final Consent Decree shall be maintained at the site for the life of the decree and shall be made available upon demand of the TCEQ or representative of any air pollution control program with jurisdiction.

Projected Actual Emissions

25. The modifications authorized by the permit application received and revised June 29, 2015 and September 8, 2015 were determined not to be subject to major new source review by identifying projected actual emission rates for the facilities potentially affected by the project. Actual emissions from those facilities shall be monitored, recorded and reports made in accordance to 30 TAC § 116.127 for the time period specified in 30 TAC § 116.127(b).

Date: May 31, 2018

Attachment I

Planned MSS Activities for Process Equipment at This Site not Authorized by This Permit

Source or Activity - PBR	Authorization
Refractory Cement Mixing for Replacement Reactor Lining	§106.141
Reactor Refractory Curing	§106.263
Filter/Strainer Change-out at Oil Pumps, Oil Unloading and Truck Unloading	§106.263(c)(1)
Filter/Strainer Change-out at Reactor	§106.263(c)(1)
Oil Pump and Pump Seal Replacement /Maintenance	§106.263(c)(1)
Fugitive component repair, replacement; leaks – piping, pumps, valves, flanges, etc. for facilities authorized by a Permit by Rule	§106.263(c)(1)
Oil Meter Repairs	§106.263
Hydraulic Repairs	§106.263
Natural Gas Meter Repairs	§106.263
Feedstock Oil Tank Cleanout	§106.263
Bag and Cartridge Filter Maintenance	§106.263

Date: February 16, 2016

Attachment II

PBR and De Minimis Sources and Planned MSS Activities for General Site Maintenance

Source or Activity - PBR	Authorization
Cleaning and stripping solvents greater than 50 gallons per year, site-wide	§ 106.261 and/or §106.262
Water-based surfactants/detergents, greater than 2,500 gallons per year, site-wide	§ 106.261 and/or §106.262
Remote reservoir and cold solvent cleaners	§ 106.454
Usage of organic solvents for maintaining equipment	§ 106.261 and/or §106.262
Maintenance, startup, and shutdown of boilers, heaters, and other combustion devices emitting only products of combustion of the fuel and authorized by a PBR	§ 106.183
Maintenance, startup, and shutdown of portable and emergency engines and turbines authorized by a PBR	§ 106.511
Fugitive component leaks – piping, pumps, valves, flanges, etc. for facilities not authorized by a permit	§ 106.261 and/or §106.262
Maintenance of sewage treatment facility	§ 106.531
Maintenance of water and wastewater treatment facility	§ 106.532
Welding, soldering, and brazing	§ 106.227
Manually operated and hand-held equipment	§ 106.265
Blasting, painting, and surface preparation of immoveable fixed structures	§ 106.263(c)(3)(A)
Natural gas-fired comfort heating	§ 106.102
Equipment fueling	§ 106.412
Diesel fuel storage tanks, gasoline storage tanks, lube oil storage tanks, and loading and unloading	§ 106.472 and/or §106.473
Emergency diesel fire water pumps, electric generators, and portable engines	§ 106.511

Source or Activity – De Minimis	Authorization
Equipment used exclusively for steam cleaning of fabrics, plastics, rubber, wood, or vehicle engines or drive trains	§ 116.119(a)(1)
Cleaning and Stripping solvents, less than or equal to 50 gallons per year, site-wide	§ 116.119(a)(2)(A)
Water-base surfactants/detergents less than or equal to 2,500 gallons per year, site-wide	§ 116.119(a)(2)(F)
Application of aqueous detergents, surfactants, and other cleaning solutions containing not more than one percent of any organic compound by weight or containing not more than five percent of any organic compound with a vapor pressure less than 0.002 pounds per square inch absolute.	§ 116.119(a)(1)
Blast cleaning operations with water as the cleaning media	§ 116.119(a)(1)
Manual application of cleaning or stripping solutions or coatings	§ 116.119(a)(1)

Source or Activity – De Minimis	Authorization
Usage of organic chemicals including lubricants, greases, and oils without propellants other than air or nitrogen for maintaining equipment	§ 116.119(a)(1)
Office equipment maintenance and cleaning (printers, copiers, etc.)	§ 116.119(a)(1)
Maintenance and cleaning of in-situ computer and office equipment	§ 116.119(a)(1)
Janitorial and maid services	§ 116.119(a)(1)
Ground maintenance and landscaping	§ 116.119(a)(1)
Maintenance of heating and cooling equipment for personal use	§ 116.119(a)(1)
Comfort air conditions or comfort ventilation systems which are not used to remove air contaminates generated by or released from specific units or equipment	§ 116.119(a)(1)
Maintenance of equipment used for hydrostatic testing	§ 116.119(a)(1)
Aerosol can puncturing, recycling and disposal	§ 116.119(a)(1)
Application of lubricants for maintaining equipment	§ 116.119(a)(1)
Application of argon, ethane, helium, hydrogen, methane, neon, nitrogen, and propane for testing, purging, and leak checking of equipment.	§ 116.119(a)(1)
Aerosol can recycling puncturing and/or crushing equipment limited to 40 aerosol cans per day (24 hours) at the site and only operated with a covered waste storage container.	§ 116.119(a)(1)
Aerosol product use – less than 4 cans/64 oz./day	§ 116.119(a)(1)
Pesticide and insecticide use and fumigation	§ 116.119(a)(1)

Date: February 16, 2016

Emission Sources - Maximum Allowable Emission Rates

Permit Number 133873 and PSDTX463

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
2	Unit 1 Exhaust Bag Filter Stack	SO_2	48.91	173.86
		H_2S	0.10	0.35
		CS_2	0.13	0.47
		COS	0.02	0.07
		CO	12.09	50.13
		HCN	0.02	0.09
		VOC	0.32	1.34
		NO_x	6.35	26.22
		NH_3	<0.01	<0.01
		PM/PM_{10}	0.74	3.22
		$PM_{2.5}$	0.74	3.22
4	Pellet Dryer Firebox Stack	SO_2	16.30	57.95
		H_2S	0.03	0.12
		CS_2	0.04	0.16
		COS	0.01	0.02
		CO	4.03	16.71
		HCN	0.01	0.03
		VOC	0.11	0.45
		NO_x	2.12	8.74
		NH_3	<0.01	<0.01
		PM/PM_{10}	0.21	1.03
		$PM_{2.5}$	0.21	1.03

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
6	Unit 2 Exhaust Bag Filter Stack	SO_2	48.91	173.86
		H_2S	0.10	0.35
		CS_2	0.13	0.47
		COS	0.02	0.07
		CO	12.09	50.13
		HCN	0.02	0.09
		VOC	0.32	1.34
		NO_x	6.35	26.22
		NH_3	<0.01	<0.01
		PM/PM_{10}	0.74	3.22
		$PM_{2.5}$	0.74	3.22
9	Unit 3 Exhaust Bag Filter Stack	SO_2	48.91	173.86
		H_2S	0.10	0.35
		CS_2	0.13	0.47
		COS	0.02	0.07
		CO	12.09	50.13
		HCN	0.02	0.09
		VOC	0.32	1.34
		NO_x	6.35	26.22
		NH_3	<0.01	<0.01
		PM/PM_{10}	0.74	3.22
		$PM_{2.5}$	0.74	3.22
21, 23 and 24	Flare No 1 – Unit 1 and Unit 2 Flare No 2 – Unit 3 Waste Gas Boiler	SO_2	---	2391.15
		H_2S	---	4.89
		CS_2	---	6.42
		COS	---	1.00
		CO	---	751.02

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
		HCN	---	1.25
		VOC	---	18.57
		NO_x	---	374.15
		NH_3	---	0.01
		PM/PM_{10}	---	51.87
		$PM_{2.5}$	---	51.87
21	Flare No 1 – Unit 1 and Unit 2	SO_2	377.06	---
		H_2S	1.54	---
		CS_2	2.07	---
		COS	0.32	---
		CO	211.14	---
		HCN	0.35	---
		VOC	5.03	---
		NO_x	27.67	---
		NH_3	<0.01	---
		PM/PM_{10}	5.42	---
		$PM_{2.5}$	5.42	---
23	Flare No 2 – Unit 3	SO_2	269.66	---
		H_2S	1.13	---
		CS_2	1.42	---
		COS	0.22	---
		CO	146.10	---
		HCN	0.24	---
		VOC	3.64	---
		NO_x	19.15	---
		NH_3	<0.01	---
		PM/PM_{10}	3.87	---

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
		$PM_{2.5}$	3.87	---
24	Waste Gas Boiler	SO_2	652.44	---
		H_2S	1.33	---
		CS_2	1.75	---
		COS	0.27	---
		CO	175.17	---
		HCN	0.29	---
		VOC	4.34	---
		NO_x	112.70	---
		NH_3	<0.01	---
		PM/PM_{10}	10.74	---
		$PM_{2.5}$	10.74	---
15a	Large Shipping Dock Cleanup Bag Filter (CUBF)	PM/PM_{10}	0.03	0.08
		$PM_{2.5}$	0.02	0.05
15b	Small Shipping Dock Cleanup Bag Filter	PM/PM_{10}	0.03	0.08
		$PM_{2.5}$	0.02	0.05
25	Unit No. 1 Black Cooler Bag Filter (BCBF)	PM/PM_{10}	0.03	0.15
		$PM_{2.5}$	0.02	0.10
26	Unit No 1 Cleanup Bag Filter	PM/PM_{10}	0.03	0.15
		$PM_{2.5}$	0.02	0.10
27	Unit No. 2 Black Cooler Bag Filter	PM/PM_{10}	0.03	0.15
		$PM_{2.5}$	0.02	0.10
28	Unit No. 2 Cleanup Bag Filter	PM/PM_{10}	0.03	0.15
		$PM_{2.5}$	0.02	0.10
29	Unit No. 3 Black Cooler Bag Filter	PM/PM_{10}	0.03	0.15
		$PM_{2.5}$	0.02	0.10

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
30	Unit No. 3 Product Bag Filter	PM/PM_{10}	0.03	0.15
		$PM_{2.5}$	0.02	0.10
FUG1	Product Handling Fugitives No. 1	PM/PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
FUG2	Product Handling Fugitives No. 2	PM/PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
PTK1	Product Storage Tank No. 1	PM/PM_{10}	<0.01	---
		$PM_{2.5}$	<0.01	---
PTK2	Product Storage Tank No. 2	PM/PM_{10}	<0.01	---
		$PM_{2.5}$	<0.01	---
PTK3	Product Storage Tank No. 3	PM/PM_{10}	<0.01	---
		$PM_{2.5}$	<0.01	---
PTK4	Product Storage Tank No. 4	PM/PM_{10}	<0.01	---
		$PM_{2.5}$	<0.01	---
PTK5	Product Storage Tank No. 5	PM/PM_{10}	<0.01	---
		$PM_{2.5}$	<0.01	---
PTK6	Product Storage Tank No. 6	PM/PM_{10}	<0.01	---
		$PM_{2.5}$	<0.01	---
PTK6b	Pulling Tank	PM/PM_{10}	<0.01	---
		$PM_{2.5}$	<0.01	---
PTK7	Product Storage Tank No. 7	PM/PM_{10}	<0.01	---
		$PM_{2.5}$	<0.01	---
PTK800	Product Storage Tank No. 800	PM/PM_{10}	<0.01	---
		$PM_{2.5}$	<0.01	---
PTK9	Burquist Tank	PM/PM_{10}	<0.01	---
		$PM_{2.5}$	<0.01	---
		PM/PM_{10}	---	<0.01

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
GPPTKS	All Product Storage Tanks	$PM_{2.5}$	---	<0.01
LABSMP	Lab Sampling	PM/PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
SHIPSMP	Product Shipping Sampling	PM/PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
RSMP	Reactor Sampling	PM/PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
FANSMP	Fan Sampling	PM/PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
FEEDSMP	Feedstock Sampling	VOC	<0.01	<0.01
FUG3	Equipment Leak Fugitives	VOC	1.10	8.30
1 (5)	Unit 1 Bypass Stack	NO_x	0.52	---
		CO	0.44	---
		VOC	0.03	---
		PM/PM_{10}	0.04	---
		$PM_{2.5}$	0.04	---
		SO_2	<0.01	---
5 (5)	Unit 2 Bypass Stack	NO_x	0.52	---
		CO	0.44	---
		VOC	0.03	---
		PM/PM_{10}	0.04	---
		$PM_{2.5}$	0.04	---
		SO_2	<0.01	---
8 (5)	Unit 3 Bypass Stack	NO_x	0.52	---
		CO	0.44	---

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
		VOC	0.03	---
		PM/PM_{10}	0.04	---
		$PM_{2.5}$	0.04	---
		SO_2	<0.01	---
1, 5, 8 (5)	Unit 1, Unit 2 and Unit 3 Bypass Stacks	NO_x	---	0.38
		CO	---	0.32
		VOC	---	0.02
		PM/PM_{10}	---	0.03
		$PM_{2.5}$	---	0.03
		SO_2	---	<0.01

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.
(2) Specific point source name. For fugitive sources, use area name or fugitive source name.
(3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
NO_x - total oxides of nitrogen
SO_2 - sulfur dioxide
H_2S - hydrogen sulfide
CS_2 - carbon disulfide
COS - carbonyl sulfide
HCN - hydrogen cyanide
NH_3 - ammonia
PM - total particulate matter, suspended in the atmosphere, including PM/PM10 and $PM_{2.5}$, as represented
PM/PM10 - total particulate matter equal to or less than 10 microns in diameter, including $PM_{2.5}$, as represented
$PM_{2.5}$ - particulate matter equal to or less than 2.5 microns in diameter
CO - carbon monoxide
HAP - hazardous air pollutant as listed in § 112(b) of the Federal Clean Air Act or Title 40 Code of Federal Regulations Part 63, Subpart C
(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
(5) Emissions from reactor startup.

Date: February 16, 2016